CP/TF/01

TEST REPORT ON BITUMEN

Lab ID	:	**CP-2018-03-28-07** **Date: 31-03-18**
Customer	:	Assistant Executive Engineer, Dasarahalli Sub division, BBMP, Bangalore.
Address	:	Dasarahalli Sub division, BBMP, Bangalore.
Project Name	:	Improvements to roads at Widia school Compound road and C. Narayana Layout in Bagalagunte Ward no.14
Agency	:	The Technical Manager, KRIDL, Project Implementation Unit, No.280, 59th cross, 17 'C' main road, 3rd 'Y' Block, Rajajinagar, Bangalore-560010.
Customer's Reference	:	EE/DD/WO/379/2017-18
Source of Sample	:	Sample supplied by Agency
Sample Condition	:	Satisfactory
Date of Receipt	:	28-03-18
Sample ID No	:	2018-03-28-07/01
Sample Type	:	Bitumen
Reference to BIS codes	:	IS: 1201-1220(1978) (Reaffirmed-2004)
Date of test	:	28-03-18

Test Results

Sl.no	Name of Test	Result	Requirements as per IS:73-2013
1	Penetration at 25°C , in 1/10th mm	**67**	60 to 70
2	Softening Point, °C	**50.8**	Min. 40°C
3	Ductility, cm	**89**	Min. 75cm
4	Flash point, °C	**233**	Min. 220°C
	Fire point, °C	**256**	

Note:
The results pertain to the samples received and tested.
All information furnished by Customer/Representative
Any correction in the report will make this report invalid
This report without prior written approval should not be reproduced or published in full or part.
Samples will be disposed after 30 days from the date of issue of test certificate

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರ
ಟಿ.ದಾಸರಹಳ್ಳಿ ಉಪ-ವಿಭಾಗ
ಬಾಗಲಗುಂಟೆ, ಬಿಬಿಎಂಪಿ
ಬೆಂಗಳೂರು

CIVIL PRO BANGALORE Sig..... Date.....

FOR CIVIL Pro.

R KARTHIK RECHAN
Authorized Signatory
Quality Manager

****End of Report****

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

TEST RESULTS OF GRADATION FOR BM
(IS 2386:(Part 1) 1963 (RA2011)

Lab ID	:	**CP-RW-2018-04-04-02** **Date: 06-04-18**
Customer	:	Assistant Executive Engineer, Dasarahalli Sub division, BBMP, Bangalore.
Address	:	Dasarahalli Sub division, BBMP, Bangalore.
Project Name	:	Improvements to roads at Widia school Compound road and C. Narayana Layout in Bagalagunte Ward no.14
Agency	:	The Technical Manager, KRIDL, Project Implementation Unit, No.280, 59th cross, 17 'C' main road, 3rd 'Y' Block, Rajajinagar, Bangalore-560010.
Customer Reference	:	EE/DD/WO/379/2017-18
Source of Sample	:	Sample supplied by Agency
Sample Condition	:	Satisfactory
Date of Receipt	:	04-04-18
Sample ID No	:	2018-04-04-02/01
Type of Mix	:	BM-Plant (Bituminous Macadam)
Date of test		04-04-18
Weight of Sample(gm)	:	5000

IS Sieve Size(mm)	Weight Retained(gm)	Comulative Weight Retained (gm)	Comulative % of Retained	Comulative % of Passing	Specification Limits as per MORTH specification Table 500-7(grading -2)
26.5	0	0	0	100	100
19	158	158	3.2	96.8	90-100
13.2	522	680	13.6	86.4	56-88
4.75	2725	3405	68.1	31.9	16-36
2.36	932	4337	86.7	13.3	4-19
0.3	363	4700	94.0	6.0	2-10
0.075	239	4939	98.8	1.2	0-8
PAN	61	5000	100.0	0.0	0

Note:-

The results pertain to the samples received and tested.
All information furnished by Customer/Representative
Any correction in the report will make this report invalid.
This report without prior written approval should not be reproduced or published in full or part.
Samples will be disposed after 30 days from the date of issue of test certificate

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರ
ಬಿ.ಬಿ.ಎಂ.ಪಿ ರಾಜ-ವಿಭಾಗ
ಬೆಂಗಳೂರು

CIVIL PRO Sig..... Date..... BANGALORE

FOR CIVIL Pro.

R KARTHIK RECHAN
Authorized Signatory
Quality Manager

End of Report

PHYSICAL REQUIREMENTS FOR COARSE AGGREGATE FOR BITUMINOUS CONCRETE

Lab ID	:	**CP-RW-2018-04-10-02**	**Date: 13-04-18**
Customer	:	Assistant Executive Engineer, Dasarahalli Sub division, BBMP, Bangalore.	
Address	:	Dasarahalli Sub division, BBMP, Bangalore.	
Project Name	:	Improvements to roads at Widia school Compound road and C. Narayana Layout in Bagalagunte Ward no.14	
Agency	:	The Technical Manager, KRIDL, Project Implementation Unit, No.280, 59th cross, 17 'C' main road, 3rd 'Y' Block, Rajajinagar, Bangalore-560010.	
Customer Reference	:	EE/DD/WO/379/2017-18	
Source of Sample	:	Sample supplied by Agency	
Sample Condition	:	Satisfactory	
Date of Receipt	:	10-04-18	
Sample ID No	:	2018-04-10-02/01	
Type of Mix	:	BC (Bituminous Concrete)	
Date of test	:	10-04-18	

Table 500-16 : Physical Requirements fo Coarse Aggregate for Bituminous Concrete

Property	Test	Result	Specification	Method of Test
Partical Shape	Flakiness Index	9.8	Combined Flakiness & Elongation Index for BC is Maximum 35%	IS:2386 Part I
	Elongation Index	10.4		
Strength	Aggregate Impact Value	21.5	Maximum 24%	IS:2386 Part IV
Specific gravity	Specific gravity	2.57	Maximum 2.7	IS:2386 Part III
Water Absorption	Water Absorption	0.21	Maximum 2%	IS:2386 Part III

Note:

The results pertain to the samples received and tested.
All information furnished by Customer/Representative
Any correction in the report will make this report invalid
This report without prior written approval should not be reproduced or published in full or part.
Samples will be disposed after 30 days from the date of issue of test certificate

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರ
ಮಿ.ದಾಸರಹಳ್ಳಿ ಉಪ-ವಿಭಾಗ
ಬಾಗಲಗುಂಟೆ, ಬಿಬಿಎಂಪಿ
ಬೆಂಗಳೂರು

CIVIL Pro Sig..... Date..... BANGALORE

FOR CIVIL Pro.

R KARTHIK RECHAN
Authorized Signatory
Quallity Manager

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

TEST RESULTS OF GRADATION FOR BM
(IS 2386:(Part 1) 1963 (RA2011)

Lab ID	:	**CP-RW-2018-04-11-02**	**Date: 12-04-18**
Customer	:	Assistant Executive Engineer, Dasarahalli Sub division, BBMP, Bangalore.	
Address	:	Dasarahalli Sub division, BBMP, Bangalore.	
Project Name	:	Improvements to roads at Widia school Compound road and C. Narayana Layout in Bagalagunte Ward no.14	
Agency	:	The Technical Manager, KRIDL, Project Implementation Unit, No.280, 59th cross, 17 'C' main road, 3rd 'Y' Block, Rajajinagar, Bangalore-560010.	
Customer Reference	:	EE/DD/WO/379/2017-18	
Source of Sample	:	Sample supplied by Agency	
Date of Receipt	:	11-04-18	
Sample ID No	:	2018-04-11-02/01	
Type of Mix	:	BM (Bituminous Macadam)	
Date of test	:	11-04-18	

Sl.no	Description	Index	Trail 1	Trail 2
1	Weight of the Sample	A	505	507
2	Weight of the sample After extraction	B	488	489
3	Bitumen percentage	$\frac{A-B}{A} \times 100$	3.37	3.55
4	Average percentage	%	3.46	

FOR CIVIL Pro.

CIVIL PRO BANGALORE Sig..... Date.....

R KARTHIK RECHAN
Authorized Signatory
Quality Manager

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

TEST RESULTS OF GRADATION FOR BC
IS 2386 (Part 1) 1963 (RA 2011)

Lab ID	:	**CP-RW-2018-04-11-02**	**Date: 13-04-18**
Customer	:	Assistant Executive Engineer, Dasarahalli Sub division, BBMP, Bangalore.	
Address	:	Dasarahalli Sub division, BBMP, Bangalore.	
Project Name	:	Improvements to roads at Widia school Compound road and C. Narayana Layout in Bagalagunte Ward no.14	
Agency	:	The Technical Manager, KRIDL, Project Implementation Unit, No.280, 59th cross, 17 'C' main road, 3rd 'Y' Block, Rajajinagar, Bangalore-560010.	
Customer Reference	:	EE/DD/WO/379/2017-18	
Source of Sample	:	Sample supplied by Agency	
Date of Receipt	:	11-04-18	
Sample ID No	:	2018-04-11-02/01	
Type of Mix	:	BC (Bituminous Concrete)	
Date of test	:	11-04-18	

Sl.no	Description	Index	Trail 1	Trail 2
1	Weight of the Sample	A	503	503
2	Weight of the sample After extraction	B	471	472
3	Bitumen percentage	$\frac{A-B}{A} \times 100$	6.36	6.16
4	Average percentage	%	6.3	

CIVIL PRO Sig..... Date..... BANGALORE

FOR CIVIL Pro.

R KARTHIK RECHAN
Authorized Signatory
Quality Manager

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

Lab ID : **CP-RW-2018-04-11-02** **Date: 13-04-18**

Sample ID : **2018-04-11-02/01**

AFTER EXTRACTION - Trail-1

Total Weight of the Sample(gm) : 471

IS Sieve Size (mm)	Weight Retained (gm)	Comulative Weight Retained (gm)	Comulative % of Retained	Comulative % of Passing	Secified limits as per MORTH specification table 500-23(grading-2)
19	0	0	0.0	100.0	100
13.2	5	5	1.1	98.9	90-100
9.5	67	72	15.3	84.7	70-88
4.75	135	207	43.9	56.1	53-71
2.36	50	257	54.6	45.4	42-58
1.18	35	292	62.0	38.0	34-48
0.6	28	320	67.9	32.1	26-38
0.3	55	375	79.6	20.4	18-28
0.15	31	406	86.2	13.8	12-20
0.075	42	448	95.1	4.9	4-10

AFTER EXTRACTION - Trail-2

Total Weight of the Sample(gm) : 472

IS Sieve Size (mm)	Weight Retained (gm)	Comulative Weight Retained (gm)	Comulative % of Retained	Comulative % of Passing	Secified limits as per MORTH specification table 500-23(grading-2)
19	0	0	0.0	100.0	100
13.2	7	7	1.5	98.5	90-100
9.5	62	69	14.6	85.4	70-88
4.75	131	200	42.4	57.6	53-71
2.36	67	267	56.6	43.4	42-58
1.18	36	303	64.2	35.8	34-48
0.6	30	333	70.6	29.4	26-38
0.3	41	374	79.2	20.8	18-28
0.15	28	402	85.2	14.8	12-20
0.075	44	446	94.5	5.5	4-10

Note:

The results pertain to the samples received and tested.
All information furnished by Customer/Representative
Any correction in the report will make this report invalid
This report without prior written approval should not be reproduced or published in full or part.
Samples will be disposed after 30 days from the date of issue of test certificate

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ಬಿ.ದಾಸರಹಳ್ಳಿ ಉಪ-ವಿಭಾಗ
ಬಾಗಲಗುಂಟೆ, ಬಿಬಿಎಂಪಿ
ಬೆಂಗಳೂರು

CIVIL PRO Sig..... Date..... BANGALORE

FOR CIVIL Pro.

R KARTHIK RECHAN
Authorized Signatory
Quality Manager

End of Report